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## *Frontiers in Geoscience Colloquium*

**Tuesday, October 11, 2016**

**3:30pm – 4:30pm**

**MSL Auditorium (TA-3, Bldg 1698)**

**Responding to rapid Arctic change – Closing the gap between desired outcomes and Arctic system science**

**Professor Hajo Eicken**

**University of Alaska Fairbanks**

The impacts of rapid Arctic change are felt at the local scale, e.g., through threats to community infrastructure or food security in Alaska villages, all the way up to the global scale, e.g., in terms of changes in the earth's radiation budget due to sea-ice loss or increasing maritime activities in the Arctic. The Conference of the Parties (COP-21) meeting in Paris and some of the associated frameworks seek to address questions of loss & damage and liability in the context of anthropogenic components of climate change. From these agreements and a broader recognition of the need for effective responses to rapid Arctic change follows a key question: How can the research community work most effectively with the peoples of the Arctic and a wider circle of stakeholders in supporting response actions to such rapid change? In the presentation, I will outline specific challenges deriving from this overarching question, in particular as they relate to the types of prediction and observing systems required to meet stakeholder information needs. Ongoing work in Alaska's Arctic marine and coastal environments can help illustrate key attributes of approaches for the design and implementation of research and observing activities that address both overarching Arctic-system science questions and societal information needs.

Host: Elizabeth Hunke, T-3, 5-9852